Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for fast locating records on a data page in a database, wherein the records on each data page form a linear record chain, comprising the steps of:

   (1) setting an ordinal-array directory structure composed of a group of record deviations at the end of a data page, in which, a record deviation is a position deviation of a record on the data page; each directory in the directory structure is called dir_slot, and each dir_slot stores the position deviation of one record; the deviation of one record is selected to be stored in dir_slot every certain number of records; and

   (2) searching for relative records in the dir_slot by adopting a locating algorithm, after locating one certain dir_slot, searching the relative group of records of the data page in order according to the record deviation stored in the dir_slot and locating the record to be searched for accurately, and output the deviation of the record for reading or updating the record.

2. (original) The method for fast locating record on a data page in a database of claim 1, further comprising the following steps of:

   putting the record to be searched for into a field structure, and comparing the record on the data page with the field structure.

3. (original) The method for fast locating record on a data page in a database of claim 2, which is characterized in:

   first endowing two variables low and up which represent the number of dir_slot with initial values, in which, low is endowed with a value of 0, up is endowed with a value that is a total number of dir_slot on the page, then searching by adopting locating algorithm, and judging which dir_slot the record belongs to.

4. (original)   The method for fast locating record on a data page in a database of claim 1, in which, said locating algorithm is dichotomizing locating algorithm.

5. (original)   The method for fast locating record on a data page in a database of claim 4, in which, said dichotomizing algorithm is to take out a medial value continuously to compare with the field structure, until the value of up-low is not more than 1.

6. (previously presented)   The method for fast locating record on a data page in a database of claim 3, which is characterized in:

after finding the record dir_slot, selecting records orderly from the dir_slot with the number of low to compare with the field structure, till the record is the last record of the dir_slot next to this record is a up record up_rec of the dir_slot with the number of up; if the record is found during this process, finishing the search on this page; if the record is not found, turning to the next page to perform the same match.

7. (original)   The method for fast locating record on a data page in a database of claim 1, which is characterized in:

when the record number of dir_slot is full due to inserting of one record onto a data page in a database, splitting the current dir_slot into two ones, so as to increase a dir_slot.

8. (previously presented)   The method for fast locating record on a data page in a database of claim 7, which is characterized in:

if the total number of records on the dir_slot where the record locates exceeds a maximum value after inserting the record into a chain table, moving all of the dir_slots behind this dir_slot the length of one bit dir_slot backward, thus, increasing adding one dir_slot, and dividing all the records on the dir_slot where this record belongs to into two parts, and attaching these two parts of records to the two dir_slots respectively.

9. (original)   The method for fast locating record on a data page in a database of claim 1, which is characterized in:

when deleting a record, taking it out from a chain table and setting a deleting mark to it.

10. (original)   The method for fast locating record on a data page in a database of claim 9, which is characterized in:

obtaining a dir_slot next to this dir_slot first, and judging the record number of the next dir_slot, if the record number exceeds a minimum value, taking out a record from the next dir_slot, and adding it to the current dir_slot; if the record number is less than or equal to the minimum value, combining these two dir_slots, and deleting the current dir_slot.

11. (previously presented)   The method for fast locating record on a data page in a database of claim 2, in which, said locating algorithm is dichotomizing locating algorithm.

12. (previously presented)   The method for fast locating record on a data page in a database of claim 3, in which, said locating algorithm is dichotomizing locating algorithm.

13. (previously presented)   The method for fast locating record on a data page in a database of claim 5, which is characterized in:

after finding the record dir_slot, selecting records orderly from the dir_slot with the number of low to compare with the field structure, till the record is the last record of the dir_slot next to this record is a up record up_rec of the dir_slot with the number of up; if the record is found during this process, finishing the search on this page; if the record is not found, turning to the next page to perform the same match.